

How do healthcare professionals manage depression and refer older people to psychological therapies? A systematic review of qualitative studies.

Rachael Frost* ¹

Angela Beattie²

Cini Bhanu¹

Kate Walters¹

Yoav Ben-Shlomo²

¹Department of Primary Care and Population Health, University College London, London, UK.

²Population Health Sciences, University of Bristol, Bristol, UK.

*Corresponding author: Rachael Frost, Department of Primary Care and Population Health, University College London, Royal Free Campus, Rowland Hill Street, London, NW3 2PF. Tel: 0207 8302881, Email: rachael.frost@ucl.ac.uk

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ABSTRACT

Background: Depressive symptoms are common in later life and increase risk of functional and cognitive decline and use of healthcare services. Despite older people expressing preferences for talking therapies, they are less likely to be referred than younger adults, particularly when aged over 80 years.

Aim: To explore how healthcare professionals manage older people in relation to depression and referrals to psychological therapies.

Design and Setting: Systematic review and thematic synthesis of qualitative studies.

Method: We searched MEDLINE, EMBASE, PsychINFO, CINAHL and SSCI (inception-March 2018) and included studies exploring healthcare professionals' views regarding management of late life depression across all settings. We excluded studies of older people's views or depression management across all ages.

Results: We included 27 studies, predominately focussing on general practitioners' and primary and community care nurses' views. Many healthcare professionals felt late life depression was primarily attributable to social isolation and functional decline, but treatments appropriate for this were limited. Clinicians perceived depression to have associated stigma for older adults, which required time to negotiate. Limited time and complexity of needs in later life meant physical health was often prioritised over mental health, particularly in frailer people. Good management of late life depression appeared to depend more on the skills and interest of individual GPs and nurses than a structured approach.

Conclusion: Mental health needs to be a more prominent concern within the care of older adults, with greater provision of psychological services tailored to later life. This may facilitate future identification and management of depression.

Keywords: Primary Health Care, General Practice, Review, Qualitative Research, Aged, Frail Elderly, Depression

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HOW THIS FITS IN

- Older people are often prescribed antidepressants and are less likely to be referred to psychological therapies, particularly when they are aged 80+
- We synthesised qualitative research to understand healthcare professionals' management of late life depression, particularly regarding psychological therapy referrals
- Clinicians had little time to negotiate the complex issue of depression and so prioritised physical over mental health needs in older people.
- Healthcare professionals reported a lack of treatments that were both available and appropriate, and so management depended on individuals' skills rather than a coherent structure

BACKGROUND

Late life depression is highly prevalent – estimates suggest 4.6-9.3% of adults aged 75+ have major depressive disorder and up to 37.4% have subthreshold depressive symptoms (1). Depressive symptoms are associated with poorer quality of life, increased mortality risk, cognitive and functional decline and greater healthcare service utilisation (2–4). Between 2014 and 2039, the number of people in the UK aged over 60 years is projected to increase from 14.9 to 21.9 million people (5) and so the appropriate management of late life depression will become increasingly important.

Late life depression is often managed in primary care, with 87.1% prescribed an antidepressant (6–8). Antidepressants have some limitations: increased age is associated with reduced efficacy (9) and potential adverse effects, and they have not been comprehensively studied in very old age groups (e.g. 85+ years), people with serious medical comorbidities or those with poor nutritional status (10,11). Older adults generally report a preference for talking therapies, especially for low-level symptoms, and a willingness to talk to mental health providers about their emotional health (12–15). However, within the UK, older adults' access to Improving Access to Psychological Therapies (IAPT) services is low (16,17), despite its effectiveness (18). Recorded referrals are as low as 3.5% and this inequality increases with greater age – those aged 85+ are five times less likely to be referred for psychological therapies than those aged 55-59, and a third more likely to be prescribed an antidepressant (8). Qualitative studies can offer insights into reasons for these low referral rates (19,20). Two previous meta-syntheses explored depression management in the general adult population (21,22), but these did not comprehensively explore differences in management due to age. Within this systematic review we therefore aimed to scope the qualitative literature to investigate how health care professionals (HCPs) manage older people in relation to depression, particularly regarding psychological therapy referrals.

METHODS

We used a thematic synthesis approach from a constructivist perspective, which aims to produce outputs directly relevant to policymakers and practitioners and allows reviewers to look for differences in perspectives according to study characteristics, such as type of healthcare professional (23,24). The protocol was registered on PROSPERO (ID 42017055207).

We searched Ovid MEDLINE (1946-Mar 2018), EMBASE (1974-Mar 2018), PsychINFO (1806-Mar 2018), CINAHL (1937-Mar 2018) and Web of Science Social Sciences Citation Index (1900-Mar 2018) (see Appendix 1 for Medline search terms). We located grey literature through ETHOS searches (inception-April 2018). Studies were eligible for inclusion when:

- Most participants were primary or secondary healthcare professionals
- Qualitative methods were used to collect and analyse data in a substantial part of the study
- Views and experiences of the treatment and management of older people with depression

We excluded studies focussed upon:

- Depression management in younger/all age groups or in people with a specific medical condition e.g. post-stroke

- Exploring the effects or implementation of new interventions
- Later life mental health without specific depression data
- Social services, third sector or trainee staff views only
- Pharmacotherapy or suicide only
- Quantitative or non-empirical
- Studies published in a language other than English (due to lack of translation facilities).

Two reviewers (RF and CB) independently assessed 10% titles and abstracts (88% agreement, with disagreements resolved through discussion) and a further 10% (91% agreement). Each reviewer then screened half of the remaining records. Full texts were appraised independently by two reviewers (RF and CB), with disagreements resolved through discussion or consultation with the whole team.

Data extraction and synthesis

Data relating to study aims, location, participants, data collection, analysis, themes and author's main implications were extracted into a Microsoft Word table by one reviewer (RF) and papers were imported into NVivo 12 (25) for synthesis. We appraised study quality using seven questions derived from the Critical Appraisal Skills Programme checklist and other checklists (26–28) (see Table 1). RF and AB or CB independently assessed study quality according to individual items and gave an overall subjective judgement of quality (very poor, poor, not very good, good, very good, excellent) and reporting quality (poor, acceptable, good). We assessed quality to provide an overall summary of the evidence base, but did not exclude studies or weight our findings within the synthesis on the basis of quality, as the role of quality assessment within qualitative systematic reviews has a number of associated debates (28).

We followed the thematic synthesis approach of coding text, developing descriptive themes and 'going beyond' the primary studies to develop analytical themes and answer the questions posed by the review (23). Relevant findings sections of included papers were coded line-by-line by RF, with independent analysis of one third of the papers by AB. These codes were aggregated to create descriptive themes that were summarised and discussed by all authors (see Appendix 2 for framework). Finally, in order 'to go beyond the data,' analytical themes were developed by RF. Potential connections and groupings were modelled, with statements written out hypothesising links, connections and themes. These were compared to coded data within and across studies and HCPs and refined until subthemes and themes were constructed. The analytical themes were reviewed by all authors (a health services researcher, two academic GPs, a clinical epidemiologist/public health specialist and an academic nurse), refined and agreed.

RESULTS

Out of 1471 unique records, we screened 161 full texts and included 27 papers of 26 studies in our qualitative synthesis (Figure 1). The majority of studies were carried out in Western countries (8 UK, 8 USA, 5 Australasia, 3 Scandinavia, 1 Canada), with one each in Taiwan and India, and reflected both publicly-funded and insurance-based systems (see Table 2 (Appendix 3 for detailed study summaries)). Qualitative data were mostly collected using interviews (19,20,29–44) and/or focus groups (36,41,45–48), with two ethnographic studies (49,50), one conference and nominal group technique (51), one mixed methods survey (52) and one multiple case study (53). Two thirds of

studies were of good/very good overall quality, with most meeting each checklist criteria (see Tables 1 & 2). The vast majority were well reported.

[Figure 1 about here]

Most HCPs were sampled from primary and community healthcare (e.g. GPs, practice nurses, home health nurses) (19,20,30,31,33,34,36,41–44,46,49,50,52), with six sampling both primary and secondary care professionals (29,37,47,48,51,53) and a small number studying HCPs in care settings (35,40,45) (Table 2). One study sampled community psychiatric nurses (CPNs) (38) and one included practice counsellors (19). As similar groups of professionals were often referred to under different names in different countries, we grouped each professional under UK headings (e.g. GPs for primary care physicians) in our thematic synthesis.

We found five themes relating to management: 1) Avoiding medicalisation of social circumstances, 2) Assumptions regarding older people and mental health, 3) Physical health is prioritised throughout healthcare, 4) Therapeutic options as a postcode lottery and 5) Variation in skills, training and approaches across all settings.

[Table 1 about here]

[Table 2 about here]

1. Avoiding medicalisation of social circumstances

Late life depression was felt to lack suitable therapeutic solutions as it was considered to mainly arise from ‘justifiable’ causes, many of which related to ageing. The majority of HCPs across all countries primarily attributed late life depression to difficult social circumstances, and in particular age-related social issues (e.g. loneliness, bereavements) and/or physical health issues, frailty and functional decline (19,20,34–36,39,41–46,53). Many GPs and nurses therefore felt there was a definite difference between sadness/distress that ‘understandably’ related to these issues, and a ‘clinical’ depression, but rarely defined where this border lay (19,20,33,34,41,45).

“GPs described depression as part of a spectrum including loneliness, lack of social network, reduction in function and very much saw depression as ‘understandable’ and ‘justifiable’” (20 p.371)

Consequently, across all studies discussing this there was a clear tension as to whether medical treatment (particularly antidepressants) could be beneficial or represented a medicalisation of social issues, further complicated by widespread views from GPs and nurses that addressing depression in some way was essential (19,20,29,33,34,41–43,45).

“GPs tended to acknowledge social and emotional causes that required non-drug interventions they could not always provide, and although antidepressants offered a solution to some patient’s problems, there appeared to be sense of unease about prescribing a medical intervention for a social cause” (33 p.e147)

‘Social solutions’ (43) (e.g. day centres) were considered the most appropriate approach (20,36,37,41,43,46,47), however although these addressed the perceived cause they were not always regarded as effective, leading to therapeutic pessimism.

"a man who is clearly isolated ... taking him out to the day centre, that'll be good for him won't it, sit in a room with other demented, depressed people & make your mood lift. It's not gonna happen' (G3, psychologist, 97-100)." (53 p.120)

Where depression was conceptualised as a response to physical illness and/or disability (19,20,34–36,39,42–44,53), even fewer solutions were identified, with the person's future regarded as negative (53). Physical health problems were deemed a barrier to psychological treatments by psychologists and CPNs (38,53) and psychological approaches were seen as inappropriate by some GPs (42). A minority of home care nurses and GPs reported using clinician support to encourage adaptation to disability (34,36). Otherwise, in response to disability, medicalisation (and subsequent antidepressant prescribing) was seen as a better alternative to doing nothing (33,42).

"usually because they're bloody sick, and is a psychologist going to help that? I don't think so." (D6) (42 p.1061)

2. Assumptions regarding older people and mental health

Healthcare professionals held a number of assumptions regarding older people's attitudes to depression. The most pervasive assumption was that older people normalised depression as part of ageing, isolation and decline and felt it to be stigmatising (19,20,33,36,39,40,42–44,48,53). Few discussed the idea that older people may have early or mid-life experiences of depression. HCPs consequently assumed that late life depression was likely to be hidden – that older people were resistant to articulating depression or distress, instead 'sprucing up' for the GP or presenting somatically (29,30,33–36,39,41–44,51,53).

"Older people were reported to attribute symptoms differently, and to have more rigid and strongly held beliefs about stigma, the desirability of coping unsupported, and the implications of failure to do so." (43 p.158)

GPs and district nurses therefore felt that depression took time, effort and skill to actively seek out, through indirectly focussing on symptoms and related concepts such as loneliness or homesickness, using screening tools or medicalising language (e.g. 'clinical depression' or 'neurobiology') to reduce stigma (20,29,32,34,39). This assumption of stigma and hidden depression did not translate to home and residential care settings - observational and HCP-reported data suggested overt symptoms, such as crying, reporting feeling sad and poor self-care (35,41,49), were displayed, although this did not increase the likelihood of treatment (see Theme 3).

[observation] "A patient says "I'm feeling sad today," while the nurse comments on a blood pressure reading." (49 p.135)

Although individual treatment preference was considered more important than age in some papers (34,36,41), there were widespread assumptions that older adults disliked and were reluctant to engage with any mental health-related treatment. Psychiatry was considered particularly stigmatised, and so psychiatry referrals were a last resort (43).

"Attaching depression to mental illness was also reported as a barrier to older adults' seeking mental healthcare services[...] "They will not accept seeing a psychiatrist because in general, people believe that psychiatry is for treating crazy people"" (39 p. 1668)

Decision-making power in late life depression rested chiefly with professionals. Some HCPs (mainly GPs) assumed that older adults were uninterested in talking therapies or that they would be ineffective (20,33,34,37,39,48), particularly if computer-based (44) and so were unlikely to dismiss these as an option (37). This did not always preclude referrals if other treatments were ineffective, but ageist stereotypes were also evident in psychological therapists and CPNs, who regarded felt that older people were unwilling to change, and discharged themselves more quickly (38,53).

“it would not be obvious to me at 76 what would improve’ (G3, psychologist, 612).” (53 p.114)

Some HCPs felt older adults conceptualised antidepressants as having a stigma or being addictive, and so required persuasion (30,33,39,42). Despite GPs feeling they had greater influence upon older than younger people (36,43), because they assumed older people were resistant, they felt it was easier to circumvent ‘depression’ during treatment through using GP support or prescribing antidepressants for ‘insomnia’ or ‘pain’ (34,39).

“I would say that even seeing someone and talking a bit in the GP surgery is a treatment in a sense although they might not think of it like that, they might just think it's a chat.” (GP9, p.3)” (34 p.172)

3. Physical health is prioritised across healthcare settings

Implicitly and explicitly, physical health issues were prioritised over mental health (20,29,30,34–39,41,43,44,48,49,53). Severe depressive symptoms could prompt action, but severity was usually defined in terms of physical impact (e.g. suicidal ideation, impact on discharge planning) (36,43,48). Depression was therefore sometimes avoided completely, despite some recognition that physical and mental health interacted (34,36,47).

[observation] “A patient says “I just want to die,” and the nurse nods head without verbal response and asks if the patient has had a recurrence of a bothersome physical symptom” (49 p.135)

This also depended on organisational time pressures. Non-psychiatric secondary care was considered a poor place for depression management, due to multiple assessments from varied professionals, the acute focus and the lack of an identified responsible person and follow-up (48). The widespread view that late life depression was best managed in primary care in many UK, Australian, US and Taiwanese studies (20,39,41–43,48), with mental health services as consultative support (43), was however at odds with the time available to GPs.

“[they are] commonly complaining of not having enough time to address the many complex issues surrounding depression in later life. “In 10 minutes there is a lack of time as to what you can do with somebody ...sometimes you don’t get to the nitty gritty.” (GP5, p.4)” (34 p.176)

In the US, home nursing visits were only eligible for insurance reimbursement where the older person had a documented need for physical health care (36,38), whilst UK district nurses’ time was limited more implicitly (41). Mental health was viewed by many HCPs as outside of their role, reflected in their lack of mental health training (20,31,34–36,41,42). In this case mental health was addressed only if they had time or outside of appointments (e.g. GPs with extended consultation times (34), home care nurses scheduling evening appointments (36,39,41)).

“The district nurses described strategies to provide the time they felt people needed but they were unable to provide as an accepted part of their role. This involved logistical approaches such as leaving certain visits until the end of the day or scheduling a visit at weekends.” (41 p.107)

Addressing psychological issues as a key part of physical healthcare for a condition (e.g. cancer) were viewed as more accessible for older people (44). Some GPs justified a physical focus as older people were at higher risk of illnesses such as dementia or cancer, which could have a similar presentation (34,39). However many felt that despite the commonality of depression in frail and housebound people across primary, community and acute settings, it was much more likely to be overlooked (33,34,43,48).

“Paradoxically, as old age and ill-health became more integrally associated with depression and its treatment, the latter was less often mentioned in consultations” (33 p.e149)

Conversely to this prioritisation of physical health, few concerns were expressed across papers regarding how antidepressants might impact upon physical health issues (e.g. falls risk) (20,42). A sense of therapeutic inertia seemed to occur once frail patients were taking antidepressants, as clinicians feared upsetting a delicate equilibrium or leading to care problems (33,35,45).

4. Therapeutic options as a postcode lottery

Whilst services such as psychological therapies, psychiatric services, social workers or social activities were considered appropriate to the perceived causes of late life depression, they were constrained by wide differences in provision across localities (20,30,33–37,39,41–44,46,48,50,52). Long waiting times, narrow eligibility criteria, poor integration with other care, being inappropriate to needs/preferences, financial constraints and limited duration of support were key issues (33,36,41–43,45,48,52). This led to an automatic discounting of psychological therapies or social approaches as an option.

““You’ve got to be pretty sick or mad to get any extra help.”” (20 p.374)

As GPs and nurses felt that depression did need to be addressed when raised, having solutions that were both appropriate and available led to a greater inclination to identify late life depression, regardless of other factors, particularly if they were less confident to manage it themselves. However, the reverse was true when services were not available (20,34,44).

“The majority of health care professionals described a reluctance to make the diagnosis of depression in an elderly person because of a feeling that they had nothing to offer the patient” (20 p.373)

When nothing else could be offered GPs and community nurses tended to provide support themselves to the older person in various ways (see Theme 5) or prescribe antidepressants (33,45). This was not always related solely to provision, however – some clinicians reported needing further local service knowledge (35,48,51).

5. Variation in skills, training and approaches across all settings

Differences in healthcare professionals’ skills, interest and perceived role in depression management were reported across all settings. Those with greater confidence in depression (usually GPs) were more likely to raise the topic (20,32,34,36,42–44,47). Confidence related to training and experience, which non-psychiatric nurses and acute care professionals expressed a need for (20,31,36,37,41,44,48). Personal interest also influenced individual GP approaches, for which a number of studies developed typologies (30,34,50). For many GPs, active listening and using the therapeutic relationship to change views about depression was seen as an effective and sufficient treatment strategy, especially for mild symptoms (20,34,39,41–43,46,47,50), and so they were

reluctant to refer on. The minority that felt untrained for this (20,43) or that their remit was only to refer or prescribe medication (30,34,53) were more likely to refer when these services were available. These different approaches and attitudes were clearly a pivotal factor with clear effects upon patients' and teams' experiences:

“Residential aged care services that had positive experiences with GPs found the referral process to other external services for depression and subsequent outcomes for residents far more positive and beneficial. On the other hand, an equal number of participants expressed disappointment at the services provided by GPs.” (35 p.20)

Some nurses felt confident they had a role in depression identification and management through reporting concerns to the GP and coaching patients on broaching depression (29,32), emotionally connecting with patients (49), referring to local services (35) or counselling regarding physical loss and disability (30). However, some nurses and many GPs felt it was outside of nurses' role and that they lacked skills and/or training to manage it (20,31,35,41,44,45).

“Nurse: We are not skilled in differentiating between these conditions. If they cry, we call it depression and give them antidepressants. And that's it.” (45 p.253)

Inter-professional communication played a key role in home nursing and residential care settings (30,39,41,44,45,49). The greater number of communication channels required to refer to primary care and the associated hierarchical issues meant that concerns could be lost or dismissed even if depression was adequately identified (35,40,41,45).

Other relevant professionals were thought to include social workers (US and Australia) (29,48), psychiatrists (47) and multi-purpose community health workers (India) (46). Psychologists and psychiatrists were considered skilled in late life depression management, but little further information regarding psychiatrists' views was found. Nevertheless, strong mental health service collaborations were considered important and increased other HCPs' confidence in managing depression, although these collaborations appeared to be incidental, arising from interested individuals rather than a clear structure (34,43,44,51).

“most participants emphasized that their best collaborations evolved on a case by case basis as they found health professionals on mental health teams with whom they could readily consult, solve problem, and share information.” (51 p.5)

DISCUSSION

Summary

We systematically reviewed 27 qualitative studies of healthcare professionals' management of older people with depression. We found that decisions regarding the identification and management of depression in later life were underpinned by strong assumptions across all settings that older people were resistant to discussing depression and its treatment, compounded by prioritisation of physical over mental health and high variation in skills and training, particularly for nurses. Beliefs about the causes of depression and its social origins underpinned decisions regarding when and what treatment was appropriate, particularly for GPs, which further depended upon a postcode lottery regarding which treatments were available for consideration.

Strengths and limitations

We systematically identified studies and drew upon views from a range of professionals, countries and settings, different socioeconomic statuses and ethnicities. This provided a more complete picture of managing depression in older adults, including in those with frailty or multimorbidity. We took a constructivist approach to the review to identify and contrast multiple conceptualisations of late life depression. Other reviews have focussed mainly upon GPs (22,54), whereas our review included the views of nurses and other HCPs. However, most studies were carried out in high-income Western countries and only English studies could be included due to a lack of resources for translation, although one excluded study reported in German found themes almost identical to our review (55). Similar themes were found in studies from Taiwan and India, although family played a larger role, so our findings may have some transferability to these settings. We did not use meta-ethnography, which may have offered greater conceptual integration, but the ability to compare across healthcare professionals was considered a key advantage for this review (24). Included studies had were mostly good quality. Theses provided a richer source of data than papers, however we could mainly only access UK theses, suggesting further qualitative evidence may exist from other countries.

Comparison with existing literature

Whilst similar themes of regarding depression as a normal response to challenging social circumstances, cautions with medicalising social issues and a lack of psychological therapies have been found in HCPs' views of depression in adults (22,54), ideas such as 'secondary gains' to a depression diagnosis (e.g. avoiding social problems, feelings of powerlessness or work) or overtly negative attitudes were not discussed regarding late life depression (22,54), possibly as it was felt to be more justifiable. Other elements not discussed in this review include taking a short-term view for older adults (e.g. GPs' reduced concern around addiction to benzodiazepines as people were unlikely to live much longer (56)) and involving family and/or supporting carers in depression management (57,58). Social workers and family carers expressed similar views around late life depression, a lack of priority for mental health and low availability of resources (59,60) and poor psychological therapy access for older adults has been documented (8). This may be compounded by ageist views and a lack of motivation to work in the sector by psychological trainees (61). Older adults similarly normalise depression, although some suggested they were more likely to raise depression in emotional than somatic terms and lacked awareness of psychological treatments (62), despite reporting preferences for them over antidepressants in other studies (12,13,15).

Implications for research and practice

This review suggests that primary care services for older people do not currently prioritise older adults' mental health to the same extent as physical health, compounded by a lack of referral options suitable to older people's needs. Further investment in psychological and social resources is needed to enable mental health in later life to achieve equitable priority with physical health, particularly if older adults are to be encouraged to use psychological services. UK guidelines recommend planning partnerships between local authorities, NHS, community organisations and voluntary sector providers to improve mental wellbeing and promote independence in older adults (63). Examples of successful management within this review suggest that older people can also be supported better with adequate staff training and better links to other services. Within all services, roles and responsibilities of healthcare professionals, particularly for nurses, need to be more clearly

outlined. Most GPs in this review felt late life depression was within their remit. Patient views have suggested that some people feel that GPs would not be receptive to discussing mood and that having a person outside of the GP consultation was beneficial (20,64).

Research into GPs' views of late-life depression has received substantial coverage and replicating this further in high income countries is likely to be unnecessary. There was a notable paucity of views of psychological therapists or psychiatrists in this review despite their role in treating late life depression, which remains an area for further qualitative research. Internet or 'bibliotherapy' (book-based) psychological approaches were also rarely discussed, and though depression in frailer populations was considered common, fewer solutions were identified for this subpopulation. Further research into effective and equitable treatments for late-life depression is needed.

CONCLUSION

This systematic review of qualitative studies suggests that depression in later life can be managed within primary care, but needs to be given greater priority when addressing the complex needs of older adults and sufficient staff training and clarity of staff roles is required. Investment in psychological therapies suitable for older adults and other social referral options are needed to facilitate the identification and treatment of late-life depression.

CONTRIBUTORSHIP STATEMENT

YBS, AB and KW conceptualised the idea for the review. RF developed and carried out searches and screened titles and abstracts. RF and CB screened full texts. RF and CB or AB assessed study quality. RF carried out the thematic synthesis, with AB undertaking blind coding on some papers, and input from KW, CB and YBS. RF drafted the manuscript and AB, CB, KW and YBS provided feedback. All authors have read and approved the final manuscript.

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COMPETING INTERESTS

The authors declare no competing interests.

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DATA SHARING STATEMENT

The NVivo database used for thematic synthesis is available from the authors upon request.

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Table 1. Quality appraisal for included papers (n=27)

Quality appraisal question		Yes	No
Does the research involve qualitative methods of data collection and analysis?		100% (27)	
Does the research have clear aims and objectives?		96% (26)	4% (1)
Were the data collected in a way that addressed the research aim?		85% (23)	15% (4)
Was the data analysis sufficiently rigorous to address the aims of the research?		85% (23)	15% (4)
Can one be confident that all the relevant data were taken into account?		81% (22)	19% (5)
Were sufficient data presented to support the interpretations made?		74% (20)	26% (7)
Did the paper demonstrate theoretical insight novel findings or perspective?		100% (27)	
What was the quality of the reporting methods?	Good	Acceptable	Poor
	67% (18)	26% (7)	7% (2)
Overall quality assessment	Very good	Good	Not very good
	41% (11)	26% (7)	33% (9)

Table 2. Study characteristics

ID	Country	Professionals (n,)	Data collection	Quality
Aakhus 2014 (37)	Norway	GPs, nurses (primary and secondary health care), psychiatrists, researchers (n=26 total)	Interviews	*
Apesoa-Varano 2011 (30)	USA	Primary care physicians (n=9) and depression care managers (n=9 nurses, n=2 psychologists)	Interviews	***
Bao 2015 (32)	USA	Nurses (n=9), nurse supervisors (n=5), clinical or medical directors (n=6)	Interviews	**
Bao 2016 (31)	USA	Nurses (n=9), nurse supervisors (n=5), clinical or medical directors (n=6)	Interviews	*
Burroughs 2006 (20)	UK	GPs (n=9), practice nurses (n=3), district nurses (n=2), community nurses (n=3)	Interviews	***
Dickinson 2010 (33)	UK	GPs (n=10)	Interviews	**
Gordon 2013 (34)	UK	GPs (n=14)	interviews	***
Hassall 2008 (35)	Australia	Care staff (n=17), including Directors of Nursing, Clinical Nurse Consultants, Registered Nurses, Respite coordinators and Social Workers.	Interviews	**
Iden 2011 (45)	Norway	Full and part time nursing home doctors (n=16), registered nurses (n=8)	3 focus groups	**
Liebel 2013 (36)	USA	Home Health Care Nurses (n=16)	Individual interviews and 2 focus groups	***
Liebel 2015 (49)	USA	Home Health Care Nurses (n=4)	Observation of 25 home visits, with moderate participation	***
Lin 2005 (38)	USA	Psychiatric home care nurses (n=9), team director (n=1)	Interviews	*
Lu 2015 (39)	Taiwan	Public health nurses (n = 12), home care nurses (n = 5), long-term care nurses (n = 2), social workers (n=5) and dietitian (n=1)	Interviews	***
McCabe 2009 (40)	Australia	Professional care assistants (n=21) from different aged settings, registered nurses (n=2), trainee nurses (n=2), GPs (n=10), senior aged care managers (n=7)	Interviews	*
Murray 2006 (19)	UK	GPs (n=18), practice nurses (n=7), practice counsellors (n=5)	Interviews	***
Patel 2001 (46)	India	Primary health centre doctors (n=3), multi-purpose health workers (n=17)	3 focus groups, including a vignette on depression	*
Pusey 2009 (41)	UK	District nurses (n=11)	3 focus groups, 1 individual interview	***
Saarela 2003 (47)	Finland	Primary care physicians (n=25), psychiatrists (n=11)	7 focus groups and individual management plans, using two vignettes	*
Stanners 2012 (42)	Australia	GPs (n=8)	Interviews	***
Strachan 2015 (43)	UK	GPs (n=9)	3 group interviews	**
Sussman 2011 (51)	Canada	Family physicians (n=3), psychiatrists (n=2), nurse practitioners (n=3), social workers (n=3), decision-makers (n=1)	Small group discussions, with nominal group technique ranking of proposed solutions	**
Tai-Seale 2007 (50)	USA	Physicians (n=35)	Observations of 385 videotaped consultations between physicians and older people	*
Todman 2010 (52)	UK	GPs (n=119)	Mixed methods questionnaire survey including an open qualitative question.	*

ID	Country	Professionals (n,)	Data collection	Quality
Timson 2013 (53)	UK	Referring agents (GPs, n=4), referred-to psychologists (n=4), wider members of case groups (n=13, including older adults, family member, community psychiatric nurse and sometimes a psychiatrist)	Multiple case study of four depressed older adults and professionals around them	**
Waterworth 2015 (44)	New Zealand	Primary health care nurses, district nurses, heart failure nurses (n not reported)	Interviews	*
White 2017 (48)	Australia	Healthcare professionals from acute settings (n=7), subacute (geriatric assessment and rehabilitation, n=20) and community care (n=27), including medical officers, physiotherapists, occupational therapists, social workers, neuropsychologists, registered nurses, podiatrists, speech pathologists, music therapists	11 focus groups	***
Wittink 2011 (29)	USA	Internists (internal medicine physicians, with focus on adult medicine, n=9), family doctors (n=4), geriatric medicine physicians (n=2)	Interviews	***

Quality ***=very good, **good, *not very good

